

A new species in the genus *Hydatothrips* Karny, 1913 (Thysanoptera: Thripidae) from Hainan, China

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Abstract: This paper describes and illustrates a new species in the genus *Hydatothrips* from Hainan Island, China, *H. hainanensis* sp. nov. The type specimens are deposited in the Entomological Museum, Northwest A&F University.

Key words: Thripinae; taxonomy; thrips

中国海南岛裂绢蓟马属一新种（缨翅目：蓟马科）

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摘要: 记述中国裂绢蓟马属 1 新种——海南裂绢蓟马 *Hydatothrips hainanensis* sp. nov.。模式标本保存于西北农林科技大学昆虫博物馆。

关键词: 蓟马亚科; 分类; 蓟马

Introduction

Sericothripinae is one of the four subfamilies in Thripidae. Species in this subfamily are easily distinguished from the other three subfamilies by their flattened body which is thickly covered with micro-setae and striking body colour patterns (Mound & Tree 2009). It is a group of mainly leaf-feeding species (Kudô 1998) with many Sericothripinae species apparently associated with the leaves of Fabaceae (Mound & Tree 2009).

Although many genera have been assigned to this subfamily before, only three genera, *Hydatothrips*, *Neohydatothrips* and *Sericothrips* are currently considered valid (Wang 2007; Mound & Tree 2009; Mirab-Balou *et al.* 2011a, 2013; Lima & Mound 2016).

Hydatothrips was erected by Karny in 1913. The type species, *H. adolfifriederici*, was designated by monotype. The species of *Hydatothrips* differ from those of the other two genera by having the metasternum forming two arms with a median V-shaped apodeme (Wang

2007). However, Mound & Tree (2009) thought classification based on these character states were unlikely to have phylogenetic significance, especially the character that distinguished *Hydatothrips* from *Neohydatothrips*, and this needs to be reconsidered further.

Up to now, 43 nominal species have been described worldwide (ThripsWiki 2018). Most of them are recorded from the Neotropical Region and East and South Asia. In China, some new species have been published sporadically (Chen 1977; Chou & Feng 1990; Han 1990; Wang 1994; Duan *et al.* 1998;). Wang (2007) studied species from East and South Asia and provided a key to 23 species. Thereafter, Mirab-balou *et al.* (2011a) described a new species, *H. longjingensis*, transferred *H. houji* Chou and Feng to *Sericothrips*, treated *H. jiawensis* Chou & Feng as a synonym of *H. proximus* Bhatti, and reported a new record, *H. abdominalis*. In that same year, Mirab-balou *et al.* (2011b) reported 13 species in this genus in their checklist of Chinese thrips. Later Mirab-balou *et al.* (2013) described a new species from southern China, *Hydatothrips ormosiae*, recorded *H. ekasi*, *H. liquidambara* and *H. onari* Kudô as new records for mainland China, and recorded *H. noro* Kudô as a new record for Taiwan. They also gave a key to the 16 *Hydatothrips* species known from China.

In this paper we describe a new species, *H. hainanensis* sp. nov., and this expands the Chinese fauna of *Hydatothrips* to 17. The type specimens are deposited in the Entomological Museum, Northwest A&F University.

Material and methods

The specimens in this study were collected and then mounted onto slides followed Zhang *et al.* (2006). All measurements described in this paper are in micrometers (µm). Specimens were observed with an EVOS digital inverted microscope. Photographs were made using a Nikon Y-IDT microscope with a Q-image CCD. Images were produced using the software Synoptic Automontage.

Taxonomy

Genus *Hydatothrips* Karny, 1913

Hydatothrips Karny, 1913.

Type-species: *Hydatothrips adolffriderici* Karny, 1913, by monotype.

Hydatothrips hainanensis sp. nov. (Fig. 1)

Male macroptera. Body bicoloured; head, mid- and meta-thorax, abdominal segments VIII–X dark brown; lateral parts of abdominal tergites II–IV light brown; pronotum and abdominal segments V–VII paler. Fore wing with basal part brown, both sub-basal and sub-apical with a paler band; apical pale brown. Antennal segments I–II, basal 3/4 part of segment III, basal 1/2 part of segment IV, and all tarsi yellow; distal 1/4 part of segment III, and distal 1/2 part of segment IV brown.

Head. Head wider than long. Occipital carina not close to compound eyes. Ocellar area raised, and sculptured with fine transverse stria. Antennal 7-segmented, both segments III and IV with forked sensoria; segment III is the longest. Postoccipital area also sculptured with fine transverse stria.



Figure 1. *Hydatothrips hainanensis* sp. nov. a. Male; b. Head and pronotum; c. Meso-metanota; d. Antenna; e. Fore wing; f. Abdominal tergites II–VI; g. Metasternite; h. Male abdominal tergites VII–X; i. Male abdominal sternites II–VI.

Thorax. Pronota wider than long, sculptured with hexagonal reticulations except the bow-knot shaped blotch which is streaked with transverse stria. There are no granular wrinkles in the hexagonal reticulations. Mesonotum lined with recurved lines, and there are no particles among the lines. Metanotum sculptured with longitudinal lines on lateral sides of the posterior part, and a few reticulations in the middle. Median pair of setae on metanota almost on the anterior margin, far apart from each other. Forewing first vein with setae uninterrupted, second vein with 2 setae.

Abdomen. Both median and sub-median setae on abdominal tergites located near anterior margin. Median setae far away from each other, distance between median setae greater than that between median and sub-median setae. Post-median part of abdominal tergites I–VI without comb. Tergites VII–VIII with posterior comb complete, but tergite VII with post-median comb setae short. Abdominal sternites without pore plate, and the median pair of setae on each sternite located on the posterior margin. Tergite IX with median setae close together, and the median setae, sub-median setae and lateral setae being almost seated on one row. There also exists one pair of projections bent on either side of tergite IX.

Measurements (male, in microns). Body length 900–1000. Antennal segments I–VII length (width): 23, 38, 69, 66, 49, 49, 26, respectively.

Female. Unknown.

Holotype. ♂, **China**, Jianfengling, Hainan, 140 m, 19-VII-2009, coll. Qingling HU.

Paratypes. 4♂, data same as holotype; 3♂, Jianfengling, Hainan, 140 m, 15-VIII-2009, coll. Qingling HU.

Host plant. Unknown, collected by sweeping nets from Poaceae.

Etymology. This specific epithet refers to its type locality.

Remarks. This new species with antennae 7-segmented which can distinguished it from most species in this genus (vs. antennae 8-segmented in *H. ormosiae*). Among these species with antennae 7-segmented, it is most similar to *H. ormosiae* Mirab-Balou, Yang & Tong, but can be distinguished from the latter by the following characters: abdominal sternites without pore plate; abdominal tergite IX with S1 as long as S2 and located in a row (vs. sternite III with very small circular pore plate; abdominal tergite IX with S1 as long as S2 but a little behind of S2 in *H. ormosiae*).

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